IN THE CLAIMS

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Please replace all prior versions and listing of claims with the following claims listing.

CLAIMS LISTING:

1.-14. (Cancelled)

15. (Previously presented) The method of claim 55, wherein said step of reducing transmission is achieved by the step of exposing said concentric annulus to a source of accelerated ions to form a buried partly- to fully-opaque layer in said concentric annulus.

16. (Currently amended) A method of forming an optical device for surgical insertion into the cornea of an eye as a corneal implant, said method including the steps of:

a. providing a polymer film having first and second surfaces;

b. forming tracks in said polymer film by exposing said polymer film to a first source of radiation;

c. etching said tracks to form at least some pores in said polymer film which connect said first and second surfaces;

d. widening by etching at least some of said pores to dimensions large enough to permit the ingrowth of corneal tissue;

e. providing a first mask; and

f. reducing the transmission of at least a first portion of said polymer film to at least certain wavelengths of visible light by exposing said first portion of said polymer film to a second source of radiation through said first mask to produce the corneal implant

~~The method of claim 52,~~ wherein said step of reducing said transmission is achieved by the step of forming a diffraction grating designed to reflect pre-selected wavelengths of visible light while transmitting other wavelengths.

17-48. (Cancelled)

49. (Currently amended) A method of forming an optical device for surgical insertion into the cornea of an eye as a corneal implant, said method including the steps of:

a. providing a polymer film having first and second surfaces;

b. forming tracks in said polymer film by exposing said polymer film to a first source of radiation;

c. etching said tracks to form at least some pores in said polymer film which connect said first and second surfaces;

~~d. widening by etching at least some of said pores to dimensions large enough to permit the ingrowth of corneal tissue;~~

~~e~~d. providing a first and a second mask;

~~f~~e. reducing the transmission of at least a first portion of said polymer film to at least certain wavelengths of visible light by exposing said first portion to a second source of radiation through said first mask; and

~~gf~~. forming surface relief in said polymer film by exposing a second portion of said polymer film to a third source of radiation through said second mask to produce the corneal implant.

50. (Previously Presented) The method of claim 49, wherein the step of reducing said transmission with said second source of radiation is achieved by using a source of accelerated ions to form a buried partly- to fully-opaque layer in said first portion of said polymer film.

51-52. (Cancelled)

53. (Previously presented) The method of claim 49, wherein the step of forming said tracks with said first source of radiation is achieved by using a source of accelerated ions.

54. (Previously presented) The method of claim 49, wherein the step of forming said tracks with said first source of radiation is achieved by using a source of x-rays.

55. (Previously presented) The method of claim 49, wherein said step of forming said surface relief with said third source of radiation includes the step of forming within said polymer film a central disc and a concentric annulus of different thickness.

56. (Previously presented) The method of claim 49, wherein the step of forming said surface relief with said third source of radiation includes the step of producing surface relief within said polymer film designed to correct for refractive error in an eye.

57. (Previously presented) The method of claim 49, wherein said third source of radiation is selected from the group including optical lithography sources and ion beam sources.

58. (Currently amended) A method of forming an optical device for surgical insertion into the cornea of an eye as a corneal implant, said method including the steps of:

a. providing a polymer film having first and second surfaces;

b. forming tracks in said polymer film by exposing said polymer film to a first source of radiation;

c. etching said tracks to form at least some pores in said polymer film which connect said first and second surfaces;

d. widening by etching at least some of said pores to dimensions large enough to permit the ingrowth of corneal tissue;

e. providing a first and a second mask;

f. reducing the transmission of at least a first portion of said polymer film to at least certain wavelengths of visible light by exposing said first portion to a second source of radiation through said first mask; and

g. forming surface relief in said polymer film by exposing a second portion of said polymer film to a third source of radiation through said second mask to produce the corneal implant.

wherein said step of forming said surface relief with said third source of radiation includes the step of forming within said polymer film a central disc and a concentric annulus of different thickness and ~~The method of claim 55,~~ wherein said step of reducing transmission is achieved by the step of forming within said concentric annulus a diffraction grating designed to reflect pre-selected wavelengths of visible light while transmitting other wavelengths.